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AUTHOR Spolsky, Bernard
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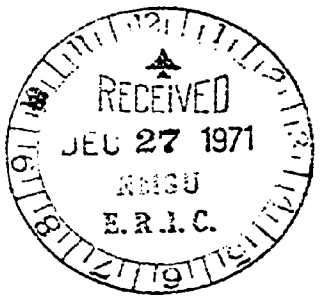
ABSTRACT

The purpose of this study was to determine 6-year-old Navajo children's relative proficiency in Navaho and English upon entering school. A first study on this topic was done in 1969. In the present study, data were obtained for 3,653 of the 4,645 children who were 6 years old in 1970. This study used a teacher questionnaire which was checked for reliability. Teachers having Navajo children in over 100 Bureau of Indian Affairs (BIA) schools and public schools on or near the Navajo Reservation were asked to describe the language capability of the 6-year-old Navajo pupils. To estimate the validity of teachers' judgments, 194 children at 18 schools were further tested. Results showed that over 2/3 of Navajo children start school not knowing enough English to function in a classroom using English. In BIA schools, this figure is 86%; in public schools, it is 51%. Comparison of 1970 results with 1969 results showed a very slight increase in amount of English that Navajo children know upon entering school. Related documents are ED 035 484, ED 043 004, ED 043 005, ED 043 413, and ED 048 584. (NQ)

NAVAJO LANGUAGE MAINTENANCE II: SIX-YEAR-OLDS IN 1970

Bernard Spolsky

Navajo Reading Study Progress Report No. 13
The University of New Mexico, August 1971



NAVAJO READING STUDY

The University of New Mexico

August 1971

The work reported herein was supported in part by the United States Department of the Interior (Bureau of Indian Affairs, Navajo Area Office, Contract No. NOO C 1420 3462), in part by a grant from the Ford Foundation, and in part by a gift to the University of New Mexico from John Nuveen and Company.

Preface

Funded originally by the Bureau of Indian Affairs in summer, 1969, the Navajo Reading Study is concerned with the Navajo right to read, studying the feasibility and effect of teaching Navajo children to read their own language first. While BIA funding lapsed from August 1970 until February 1971, a gift from John Nuveen and Company made it possible to replicate, with more completeness and thoroughness, the 1969 language census. The data collected have now been analyzed, and the results are reported herein. A second study (appearing as Progress Report No. 14) discusses some of the factors that account for the present situation of Navajo language maintenance.

Acknowledgement is due to those individuals without whose assistance this survey would have been impossible. Wayne Holm cooperated closely in all aspects of the study, developing in particular the interview; Irene Silentman put together the results and, with assistance from Marlene Atcitty and Julia Benedetti, carried out the difficult task of ensuring a high proportion of returns to the census. The judging for the validity study was done by Wayne Holm, Eddie Thompson, Irene Silentman, Marlene

Atcitty, Theda Toledo and Priscilla Arthur. Statistical analyses were run by Jonathan Embry at the University of New Mexico Research Computing Center.

Particular thanks must be expressed to the teachers and administrations at one hundred schools without whose cooperation this survey would have been impossible.

Bernard Spolsky
Principal Investigator

Summary

We surveyed the language ability of six-year-old Navajo children, seeking to determine their relative proficiency in Navajo and English at the time they began school. Data were obtained for 3653 children, which is 79% of the 4645 children who were six in 1970. The study used a teacher questionnaire which was checked for reliability by a sample second administration and for validity by comparison with the ratings of trained judges in an interview. The results established that over two-thirds of Navajo children come to school not knowing enough English to function in a classroom using English. In schools operated by the Bureau of Indian Affairs, the figure is 86%: in public schools it is 51%. Comparison of the 1970 results with a 1969 survey shows a very slight increase in the amount of English that Navajo children know when they come to school.

Navajo Language Maintenance II: Six-year-olds in 1970

Bernard Spolsky

As a necessary preliminary to our study of the feasibility and effect of teaching Navajo children to read in their own language first, we wished to have some picture of the present status of the Navajo language. This can serve as a baseline for later studies of any change and might make possible some degree of prediction of the direction and speed of language loss. The size of the Navajo nation and the fact that it is settled in a reasonably self-contained area means that maintenance is much more practical for Navajo than for the hundreds of smaller tribal groups that have lost or are losing their language; nevertheless, there is a steady increase in the amount of English spoken on and off the Reservation, and a related percentage decrease in knowledge of Navajo. But it must be pointed out that with the continued growth of Navajo population, there has been an absolute increase in the number of speakers of Navajo.

Our first study of this question was carried out in 1969 (Progress Report No. 5. Navajo Language Maintenance: Six-year-olds in 1969, March 1970); we have now repeated our survey, including a greater number of schools and

checking the validity and reliability of our measures. A related study attempts to correlate these data with measures of acculturation (Project Report No. 14: Navajo Language Maintenance III.)

The general method adopted in each survey was to prepare a simple questionnaire to be completed by teachers with Navajo children in their classes. These questionnaires were sent to over 100 schools on or near the Reservation. The survey provides data on 79% of the Navajo children registered as born in 1964, reaching 84% of those in school.

	Census figure	Included in Survey	
In BIA Schools	2308	1873	81%
In Public Schools	1826	1630	89%
In Mission and Private Schools	201	150	75%
In Special Schools	4		
Not in School	306		
Total	4645	3653	79%

(Information from Pearl Hatathli, Navajo Area Office, Window Rock)

As a check on reliability, ten teachers were asked to fill out the questionnaire a second time, six months later. To estimate the validity of the teachers judgements, 194 children at eighteen schools were further tested by our staff.

The questionnaire we sent out to teachers asked them to describe the language capability of each of their six-year-old Navajo pupils at the time of starting school. Teachers

were advised to ask help from other staff members if they needed it; this was to encourage them to ask Navajo aides about the students' knowledge of Navajo. Teachers were assured that the questionnaire was not meant to "judge teachers, schools or programs, but to provide information that will be useful in program planning". We emphasized that we were interested in the child's language competence when he first came to school, attempting to avoid by this any suggestion that it was the teacher herself or her effectiveness that was being investigated. Teachers were asked to place each child on a five-point scale:

N: When the child first came to school, he or she appeared to know only Navajo, and no English.

N-e When the child first came to school, he or she appeared to know mainly Navajo; he or she knew a little English, but not enough to do first grade work.

N-E: When the child came to school, he or she was equally proficient in English and Navajo.

n-E: When the child came to school, he or she knew mainly English and also knew a bit of Navajo.

E: When the child came to school, he or she knew only English.

In case they were uncertain, teachers were asked to use a question mark rather than a check mark in the appropriate column. This was seldom done.

Reliability of the Instrument

We can report on three measures of the reliability and validity of the instrument:

1. The original questionnaire was circulated in September, October 1970. As a test of the reliability of the instrument, ten teachers at different schools were asked to fill it out a second time in March. A telephone call to the principal explained the purpose of this: a covering letter emphasized that the teacher was to rate proficiency at the time school began the preceding fall. This gives a total of 187 pupils who were rated twice. The comparison between these two ratings is set out in Table I. Overall correlation of ratings was 0.78. Considering the lapse in time of over six months, the measure turns out to be very reliable: some individual teachers are rather unreliable, but even in these cases, there was usually little change in the average score for a school.

TABLE I

Test-Retest Reliability

Teacher	Number of Pupils	Average by Score Fall	Average by Score Spring	Correlation
1. (Tuba City, BIA)	19	4.8	4.9	.59*
2. (Rock Point)	19	4.5	4.3	.62**
3. (Cottonwood)	27	4.0	4.3	.68**
4. (Crownpoint, BIA)	20	4.5	4.7	.78**
5. (Aneth)	14	4.0	4.1	0
6. (Mesa)	20	4.7	3.1	.15
7. (Ft. Defiance)	18	2.6	2.5	.88**
8. (Washington Elem.)	11	2.7	2.1	.19
9. (Navajo)	19	2.4	2.4	.87**
10. (Crownpoint Elem.)	20	4.7	4.6	.81**
OVERALL	187	3.98	3.79	.78**

* Significant at the $p < .05$ % level.
** Significant at the $p < .01$ % level.

2. A question raised during the 1969 survey was the validity of the teacher's ratings. Several possible sources of error were suggested. Very few teachers know any Navajo: they would therefore be unable to assess how much Navajo the child knows. (It was for this reason that we encouraged them to ask advice.) For this reason, they might tend to overstate knowledge of English. Another reason for overstating English would be unwillingness to recognize that the children had a language of their own. On the other hand, teachers might overstate Navajo as an explanation of any failures of the child, or to provide some support later for their own teaching difficulties. We suspected these factors would balance each other. All the same, we wanted to get some sort of picture of the amount of reliance that could be placed on teacher ratings. Therefore, three teams of bilingual judges visited eighteen schools and rated a total of 194 pupils using an Interview instrument specially developed for the purpose. (For a full discussion of the instrument and the principles behind it, see "Three Functional Tests of Oral Language Proficiency," Bernard Spolsky, Penny Murphy, Wayne Holm, and Allen Ferrel).

The Navajo-English Language Dominance Interview is intended to be administered by two bilingual interviewers,

one of whom is to use only Navajo and the other only English in the interview. It consists of three blocks of questions. The first block in Navajo has eleven questions and the second in English has ten. The third block consists of three questions to be asked in whichever language appears to be the child's stronger. Decision points within the blocks make it possible to avoid going through all questions. The first two questions of the Navajo block are part of traditional adult Navajo greeting formality, asking the child for the name of his own clan and his father's clan. Very few children were able to answer these questions. Almost all, however, could handle the third question asking them for their name. After the next two questions which ask where they live it is possible to decide which children know no Navajo at all. The next set of questions concerns siblings in school, how well the child speaks Navajo, how well he knows English and where he learned English. The final question in this section asking the child in Navajo how often he understands the teacher was generally replied to frankly and probably correctly as "some of the time" or "seldom" or "never".

If the child does not respond to the first four English questions, an early decision point is available. At the end of the English block, the scorers rate the child's

ability in English; they also make a decision on dominance if they have low ratings for each of the languages. The third block begins in what appears to be the child's stronger language, but continues in the language of his choice. The first two questions ask which language is easier and in which language does the child prefer to be spoken to. While most seemed to prefer Navajo at this point, there were a number of children, particularly in one of the acculturating communities, who said they preferred English even though they proved quite incapable of handling the questions in English.

The final question of this section asks the child's view of bilingual education. The wording of the question (in English) is: "In some schools, they all talk Navajo; in other schools, they all talk English; in still other schools they talk both Navajo and English. If you could choose which way would you like (to go to school): all in Navajo? all in English? in both Navajo and English?" As we expected the results indicated that the children did not understand the question fully. We had felt however that it needed to be asked because of the importance that Navajo parents place on the child's wishes in educational matters.

The pairs of judges, all of whom were fluent in Navajo and English and had good experience with Navajo children,

spent a week on the Reservation in mid-September 1970. In each school they visited, they interviewed as many six-year-old children as possible; the maximum in any one school was fifteen.

Table II gives details of the comparison of judge's ratings with the teacher ratings. The overall correlation of .67 is highly significant, but as Table II makes clear, there are usually too few pupils in each school for that school's correlation to reach significance. But considering all the circumstances, the validity of the instrument was most satisfactory.

It is important to stress then that the data provided by the instrument are measures of general tendency and not of a specific child's ability, and to recognize the amount of variability that there might be in the scores provided by an individual teacher. We might use these data, too, to answer the question of the probable direction of teacher error. In the test-retest reliability study, the overall average language score in fall was 3.98 and in spring 3.79. In other words, the teachers came later to perceive the children as having known more English. In the teacher-judge validity study, the overall average language score given by teachers was 3.92 and by judges was 3.88. In other words,

the judges, who knew Navajo, observed slightly more English than did the teachers.

We might therefore surmise that the data in this study as a whole tend to underestimate slightly (less than 5%) the amount of English known by the children when they begin school.

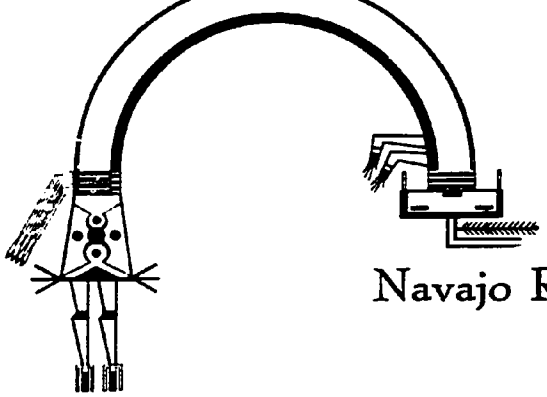
TABLE II

Judge - Teacher Correlation

School	Number of six-year olds	Teacher's Average Language Score	Judges' Average Language Score	Correlation
1. (Church Rock)	15	3.8	3.4	.44
2. (Ft. Defiance)	11	3.2	3.1	.85
3. (Ganado)	4	4.0	3.3	.54
4. (Kinlichee)	11	4.3	4.7	.60
5. (Red Rock)	15	3.7	3.5	.60
6. (Tse Bonito)	11	3.2	4.0	.58
7. (Tuba City, BIA)	7	4.6	4.6	.88*
8. (Tuba City Elem.)	14	3.1	2.9	.68
9. (Chilchinbeto)	13	4.6	4.5	.10
10. (Crownpoint, BIA)	13	4.6	4.5	.70*
11. (Crownpoint Elem.)	9	2.9	2.0	.74
12. (Kayenta BIA)	15	4.7	4.4	0
13. (Mesa)	8	3.0	2.6	.80
14. (Naschitti)	6	3.5	4.2	.24
15. (Shiprock, BIA)	10	4.7	4.5	.16
16. (Toadlena)	14	4.2	4.2	.60
17. (Cottonwood)	11	3.9	4.4	.56
18. (Rock Point)	7	4.0	4.7	0
OVERALL	194	3.92	3.88	.67**

*Significant at the $p < .05\%$ level.
**Significant at the $p < .01\%$ level.

3. In a parallel use of the instrument, the Southwestern Cooperative Educational Laboratory found a measure of agreement between this instrument and the OLP English Placement Test.



Navajo Reading Study • The University of New Mexico

1805 Roma N.E.
Albuquerque, New Mexico 87106
Telephone 505: 277-5749

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